Improving adherence in urological conditions

THOMAS KENNY

Adherence with drugs for overactive bladder is notoriously poor. In this article, Thomas Kenny discusses the underlying issues around adherence and persistence with treatment.

The success of pharmacotherapy depends on many factors, but one of the most important is adherence and persistence. Adherence with drug therapy has been defined as the extent to which a patient follows a prescribed treatment regimen. Understanding of this issue has evolved from a focus on 'compliance', which placed the entire responsibility on the patient, to the broader definition of adherence, referring to a more collective responsibility between the patient and healthcare professional, with the patient being an active participant in their own care. Persistence is the act of continuing treatment for the prescribed duration. Adherence to medication is low across long-term conditions, with an estimated 50% of prescribed medicines not being taken correctly. Non-adherence has been associated with negative outcomes, including morbidity, mortality and reduced healthcare costs.1

ADHERENCE IN UROLOGY

Adherence is a particular problem in urological conditions, where rates of engagement with healthcare, adherence and persistence with treatment are all low. Lower urinary tract symptoms are highly prevalent, affecting around 22% of men aged 50–59, and 45% of those aged 70 and above;2 however, the vast majority of men (81%) do not seek medical treatment for these symptoms, and 90% are not on medication.2–4 Following radical prostatectomy, between 16% and 86% of men experience erectile dysfunction. Clinical trials show that erectile dysfunction following radical prostatectomy can be effectively managed with a phosphodiesterase type 5 inhibitor (PDE5I); however, many patients choose not to take up these treatments. For example, despite a high level of motivation...
to maintain erectile potency, half of a sample of men offered a PDE5I following radical prostatectomy decided not to initiate treatment on discharge from hospital, and three quarters did not attempt sexual intercourse in the following 18 months.\(^5\)

Pharmacological treatments for overactive bladder (OAB) require long-term use, but studies show that high rates of non-adherence and discontinuation of treatment are common. In a real-world study, 52% of patients prescribed an antimuscarinic drug were non-adherent (medication possession ratio <80%). Repeat prescription data suggest that the median duration of antimuscarinic drug use is three months in the UK.\(^6\) A systematic review of 14 studies of people with OAB found median persistence rates with antimuscarinic drugs ranged between 12% and 39% at 12 months, falling to between 6% and 12% at 24 months.\(^7\) Rates of non-adherence and discontinuation of treatment for OAB are reportedly the same for men and women.\(^8\)

**IMPROVING ADHERENCE**

There is a clear need for effective interventions to increase adherence and persistence with treatment for urological conditions. A recent systematic review of interventions to improve adherence to medicines prescribed for long-term treatments found that, while behaviour can be changed, effects were often small and short-lived.\(^9\) The limited success of interventions has been attributed to deficits in both their development and design.\(^10\) Interventions often have not been developed based on a theoretical model of adherence. Where they are based on sound theory, they are often effective. The development and utilisation of theory-based interventions for supporting adherence to medicines is therefore a priority, and for the practising clinician it is important to remember that these interventions need not necessarily be long or complex.

**IDENTIFYING AND ADDRESSING BARRIERS**

There is evidence that the delay in seeking treatment for OAB is linked to patients' attitude toward their illness. In a survey of 192 men with symptoms of OAB, delay seeking healthcare was linked to beliefs that OAB symptoms were 'a natural physiological phenomenon' and 'not severe enough to be treated.'\(^11\) The degree to which people are bothered by symptoms may also be important. 52% of people who indicated that they were bothered by their OAB symptoms initiated a conversation with a healthcare professional, compared to 22% who were not bothered.\(^12\)

**THE PERCEPTIONS AND PRACTICALITIES APPROACH**

The Perceptions and Practicalities Approach (PAPA) is a conceptual framework that can be applied to explain why many adherence support interventions have been ineffective, and to help identify how the situation might be improved. Within the PAPA, non-adherence is conceptualised as a complex behaviour that can have multiple causes, both unintentional and intentional. Unintentional non-adherence occurs when the patient wants to take the treatment but is prevented from doing so by barriers that are beyond their control (e.g., they forget, they cannot operate the drug delivery device, they have not understood the instructions, they cannot afford to pay for the treatment). Intentional non-adherence occurs when the patient decides not to take the treatment, and can be explained in terms of the perceptions that shape the patient’s motivation to start and continue with it. In any individual, non-adherence may be both intentional and unintentional. The PAPA provides a convenient framework for designing adherence support programmes by outlining the key features that are likely to ensure efficacy of the programme (Box 1).

**Box 1. The Perceptions and Practicalities Approach (PAPA) to adherence programme design**

The PAPA suggests that adherence support will be more effective if it:
- Addresses perceptions that influence the motivation to adhere
- Addresses the practicalities that influence the ability to adhere
- Combines both perceptions and practicalities
- Tailors support to address the specific perceptions and practicalities that are salient for each individual

**THE NECESSITY–CONCERNS FRAMEWORK**

Patients' perceptions of their illness and treatment are important determinants of illness-related behaviours. Delay to seek treatment and non-adherence may seem illogical from the medical perspective, but are a common-sense response when viewed through the patient's own perception and experience of the condition.

There is strong evidence that patients' motivations to start and continue with prescribed treatment regimens are influenced by their beliefs, illness and treatment. The Necessity–Concerns Framework (NCF) identifies the key perceptual barriers and drivers to adherence. Necessity beliefs are founded on the answers to two questions: 'How much do I need this treatment?' and 'How much can I get away without it?' Concerns about a specific prescribed treatment relate to the experience of medication side-effects and the disruptive effects of medication on daily living, as well as potential long-term effects. A meta-analysis of 94 studies spanning 23 long-term conditions from 18 countries showed that doubts about the necessity for prescribed medicines and concerns about adverse
effects were consistent determinants of non-adherence. The way in which the patient judges their personal need for treatment relative to their concerns about potential adverse consequences of using the medication as recommended is particularly important. For this reason, interventions to improve adherence are likely to be more effective if they elicit and address each patient’s necessity beliefs and concerns.

CHALLENGING MISCONCEPTIONS

The basis of successful psychoeducational interventions is to provide a common-sense rationale for adherence, finding and challenging misconceptions about the illness and treatment, and addressing the need for continued treatment. Common reasons for discontinuation of OAB medicines include perceptual barriers stemming from a perceived lack of effectiveness, resolution of symptoms and the experience of side-effects. Adherence and persistence may therefore be increased by intervening at the start of treatment to ensure that patients have realistic expectations. For example, patients who expect immediate resolution of their symptoms will doubt the efficacy of their treatment if it does not work straightaway, unless they are informed that symptom resolution takes longer.

Patients who experience an improvement in symptoms after a few months may stop their medication if they perceive that their medication is no longer necessary. Concerns may be addressed by helping patients to recognise and manage medication side-effects, as well as eliciting and addressing their specific concerns. Whether symptoms are bothersome or not is related to how a patient must change their life to manage them and the meaning they ascribe to the experience of the side-effect.

In a randomised controlled trial of a telephone-based medicines support intervention, a pharmacist telephoned patients to elicit and address perceptual barriers and practical problems within 10 days of receiving a newly prescribed medicine. Patients randomised to receive the intervention had more positive medication beliefs (fewer doubts about necessity and fewer concerns), fewer medication problems and higher reported adherence than people who were randomised to the standard care control condition.

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In routine clinical practice, simple discussion with patients about their beliefs about the medicines prescribed for them can be illuminating and allow you to support greater adherence.

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REFERENCES